

2/1

#2



OIEP

ENTERED

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/067,977

DATE: 02/28/2002
 TIME: 12:41:45

Input Set : A:\SEQLIST_1313.TXT
 Output Set: N:\CRF3\02282002\J067977.raw

4 <110> APPLICANT: YAN, Chunhua and KE, Zhaoxi
 6 <120> TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC
 7 ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES
 8 THEREOF
 10 <130> FILE REFERENCE: CL001313
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/067,977
 C--> 12 <141> CURRENT FILING DATE: 2002-02-08
 12 <160> NUMBER OF SEQ ID NOS: 4
 14 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 16 <210> SEQ ID NO: 1
 17 <211> LENGTH: 1338
 18 <212> TYPE: DNA
 19 <213> ORGANISM: Homo sapiens
 21 <400> SEQUENCE: 1
 22 atgggggggaga tgcaggggcgc gctggccaga gcccggtcgc agtccctgct gcggcccccgc 60
 23 cacaaaaaaga gggccgagggc gcagaaaagg agcgagtcct tcctgctgag cggactggct 120
 24 ttcatgaagc agaggaggat gggctctgaac gactttattc agaagattgc caataactcc 180
 25 tatgcatgca aacaccctga agttcagtc atcttgaaga tctcccaacc tcaggagcct 240
 26 gagcttatga atgccaaccc ttctcctcca ccaagtcctt ctcagcaaat caaccttggc 300
 27 ccgtcgtcca atcctcatgc taaaccatct gactttcact tcttgaaagt gatcggaag 360
 28 ggcagttttg gaaagggttct tctagcaaga cacaaggcag aagaagtgtt ctatgcagtc 420
 29 aaagttttac agaagaaagc aatcctgaaa aagaagagg agaagcatat tatgtcggag 480
 30 cggaatgttc tgttgaagaa tgtgaagcac cctttcctgg tgggccttca cttctctttc 540
 31 cagactgctg acaaattgta ctttgtccta gactacatta atgggtggaga gttgttctac 600
 32 catctccaga gggaaacgctg cttcctggaa ccacgggctc gtttctatgc tgcagaaata 660
 33 gccagtgcct tgggctacct gcattcactg aacatcgttt atagagactt aaaaccagag 720
 34 aatattttgc tagattcaca gggacacatt gtccttactg acttcggact ctgcaaggag 780
 35 aacattgaac acaacagcac aacatccacc ttctgtggca cgccggagta tctgcacct 840
 36 gaggtgcttc ataagcagcc ttatgacagg actgtggact ggtggtgcct gggagctgtc 900
 37 ttgtatgaga tgctgtatgg cctgccgcct ttttatagcc gaaacacagc tgaaatgtac 960
 38 gacaacattc tgaacaagcc tctccagctg aaaccaaata ttacaaattc cgcaagacac 1020
 39 ctcttgaggg gcctcctgca gaaggacagg acaaagcggc tcggggccaa ggatgacttc 1080
 40 atggagatta agagtcatgt cttcttctcc ttaattaaact gggatgatct cattaataag 1140
 41 aagattactc ccccttttaa cccaaatgtg agtgggcccc acgacctacg gcactttgac 1200
 42 cccgagttta ccgaagagcc tgtccccaac tccattggca agtccctga cagcgtcttc 1260
 43 gtcacageca gctcaagga agctgccgag gctttcctag gcttttcta tgcgcctccc 1320
 44 acggactctt tcctctga 1338
 46 <210> SEQ ID NO: 2
 47 <211> LENGTH: 445
 48 <212> TYPE: PRT
 49 <213> ORGANISM: Homo sapiens
 51 <400> SEQUENCE: 2
 52 Met Gly Glu Met Gln Gly Ala Leu Ala Arg Ala Arg Leu Glu Ser Leu

RAW SEQUENCE LISTING

DATE: 02/28/2002

PATENT APPLICATION: US/10/067,977

TIME: 12:41:45

Input Set : A:\SEQLIST_1313.TXT

Output Set: N:\CRF3\02282002\J067977.raw

```

53 1          5          10          15
54 Leu Arg Pro Arg His Lys Lys Arg Ala Glu Ala Gln Lys Arg Ser Glu
55          20          25          30
56 Ser Phe Leu Leu Ser Gly Leu Ala Phe Met Lys Gln Arg Arg Met Gly
57          35          40          45
58 Leu Asn Asp Phe Ile Gln Lys Ile Ala Asn Asn Ser Tyr Ala Cys Lys
59          50          55          60
60 His Pro Glu Val Gln Ser Ile Leu Lys Ile Ser Gln Pro Gln Glu Pro
61 65          70          75          80
62 Glu Leu Met Asn Ala Asn Pro Ser Pro Pro Pro Ser Pro Ser Gln Gln
63          85          90          95
64 Ile Asn Leu Gly Pro Ser Ser Asn Pro His Ala Lys Pro Ser Asp Phe
65          100          105          110
66 His Phe Leu Lys Val Ile Gly Lys Gly Ser Phe Gly Lys Val Leu Leu
67          115          120          125
68 Ala Arg His Lys Ala Glu Glu Val Phe Tyr Ala Val Lys Val Leu Gln
69          130          135          140
70 Lys Lys Ala Ile Leu Lys Lys Lys Glu Glu Lys His Ile Met Ser Glu
71 145          150          155          160
72 Arg Asn Val Leu Leu Lys Asn Val Lys His Pro Phe Leu Val Gly Leu
73          165          170          175
74 His Phe Ser Phe Gln Thr Ala Asp Lys Leu Tyr Phe Val Leu Asp Tyr
75          180          185          190
76 Ile Asn Gly Gly Glu Leu Phe Tyr His Leu Gln Arg Glu Arg Cys Phe
77          195          200          205
78 Leu Glu Pro Arg Ala Arg Phe Tyr Ala Ala Glu Ile Ala Ser Ala Leu
79          210          215          220
80 Gly Tyr Leu His Ser Leu Asn Ile Val Tyr Arg Asp Leu Lys Pro Glu
81 225          230          235          240
82 Asn Ile Leu Leu Asp Ser Gln Gly His Ile Val Leu Thr Asp Phe Gly
83          245          250          255
84 Leu Cys Lys Glu Asn Ile Glu His Asn Ser Thr Thr Ser Thr Phe Cys
85          260          265          270
86 Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu His Lys Gln Pro Tyr
87          275          280          285
88 Asp Arg Thr Val Asp Trp Trp Cys Leu Gly Ala Val Leu Tyr Glu Met
89          290          295          300
90 Leu Tyr Gly Leu Pro Pro Phe Tyr Ser Arg Asn Thr Ala Glu Met Tyr
91 305          310          315          320
92 Asp Asn Ile Leu Asn Lys Pro Leu Gln Leu Lys Pro Asn Ile Thr Asn
93          325          330          335
94 Ser Ala Arg His Leu Leu Glu Gly Leu Leu Gln Lys Asp Arg Thr Lys
95          340          345          350
96 Arg Leu Gly Ala Lys Asp Asp Phe Met Glu Ile Lys Ser His Val Phe
97          355          360          365
98 Phe Ser Leu Ile Asn Trp Asp Asp Leu Ile Asn Lys Lys Ile Thr Pro
99          370          375          380
100 Pro Phe Asn Pro Asn Val Ser Gly Pro Asn Asp Leu Arg His Phe Asp
101 385          390          395          400

```

RAW SEQUENCE LISTING

DATE: 02/28/2002

PATENT APPLICATION: US/10/067,977

TIME: 12:41:45

Input Set : A:\SEQLIST_1313.TXT

Output Set: N:\CRF3\02282002\J067977.raw

```

102 Pro Glu Phe Thr Glu Glu Pro Val Pro Asn Ser Ile Gly Lys Ser Pro
103           405           410           415
104 Asp Ser Val Leu Val Thr Ala Ser Val Lys Glu Ala Ala Glu Ala Phe
105           420           425           430
106 Leu Gly Phe Ser Tyr Ala Pro Pro Thr Asp Ser Phe Leu
107           435           440           445
110 <210> SEQ ID NO: 3
111 <211> LENGTH: 10573
112 <212> TYPE: DNA
113 <213> ORGANISM: Homo sapiens
115 <400> SEQUENCE: 3
116 tctggctcgt gctctcatgt catctcagag ttccagctta tcagaggcat gtagcagggg 60
117 ggcttattcc agccataact gggctctacc tccagcctcc agaagtaatc cccaacctgc 120
118 atatccttgg gcaacccgaa gaatgaaaga agaagctata aaacccctt tgaaagggtc 180
119 gtacttaccg tactatatatt tgcagatgcc tcaaaggatt tggggttact tggcatgggg 240
120 aaggcacata aggtgggggtg taggagaggg tctctggttg taggtttctt aatttaattgt 300
121 ttgaaaacaa acatgcaaaa gtctgtgtgc aggttgatgt ttctgggcag cctgagcaaa 360
122 atttgctctc tcaagaggga aaggaaccag gtgggagcag agctaggctg ggctaggcta 420
123 gttgaatggt gggacatgac atacgggtgg cactggcaat aacaaagtca cattctatga 480
124 agattccctg caagagggaag cagacatggg ccagttactg tgatttgaaa ttgcctaaac 540
125 attgcttttag gttggcatgt caatttcagg tactagtgtt ttttttgttt ttgtttttgt 600
126 tttgtttttg tttgtttgtt tgttttgaga cggagtctcg ctctgttgcc aggctggagt 660
127 gcagtggcgt gatctcggct cactgcaacc tccgcctccc gggttcaagc gattctcctg 720
128 cctcagcctc ccgagtaact gggactacag gcgcacgcca ccacgcctgg ctaatttttc 780
129 tattttcagt agagacgggg tttcaccatg ttagccagga tggctctgat ctcttgacct 840
130 cgtgatccgc ccgccttggc ctcccaaagt gctgggatta caggcgtgag ccactgcgcc 900
131 cggccccaagt aaatgctttt tataagtgtg ggcactgagc aaactttccc agccagactc 960
132 caggagagag aatgtgtttc ccttctctcg gtttggggct gttgcaacaa agcaaaccaa 1020
133 ggagttgaga ctagagctca ctttagggca agtgggggtg gttttgctg caaaacaaac 1080
134 ccctgcccaa gaccaaggaa aaggcgtttc acatgctatt cctggtttga cagctggtat 1140
135 ttcgggactg tgccagatcc agtaggcaac tttaaaatgg cagagccttt ggtagcaaga 1200
136 ggtcatggca gggcagccac cgcagacagc aacagcgagc gccaggtaac tggccctgcg 1260
137 aatagtggta acttgtaact gccgcctccg ggcccagtcg ctgtgctcgc ggcttcccgg 1320
138 ccagcactgg ctacagtcgc cgcgcggcg gtcaggctgc ggctcccaga catccccag 1380
139 ccgcgggggt actggaaggc accggcatcg ctgttctgca gagcccgggc cgcgcctcgc 1440
140 agcttccctc tcttccctgc cttctgcagc ggagtcaccc ggctaattct tcaggataaa 1500
141 gtcacagttt atgtgggact cacataaaga gcgagcgagg tggcaaaact aagaagccct 1560
142 ggggcagcct tgagttaaac ccagggaggg tagggacgat tttaagacca tgtatcatga 1620
143 cctgcagggt tttcagggtg gacagcgggg gaggagcagg cccacacagag gaatcgagga 1680
144 tgcccggttc acgccaggtc tgcccccggg caaagctacc cctcccttcg cttgttacct 1740
145 cctcacgtgt tcttggcatg gcagagatta aaaatgcaag gaaaaaaatt acatgcggaa 1800
146 cggacaaaat gttctcagag attacttcag aaaaaaaaaa gtgaaatgca gattgtactt 1860
147 ctctctttag tgcagagacg acttttattt ccgccccctc cctccacat tctgacctc 1920
148 tccctccccc ttttccctct ttctttcctt ccttccctct cttccaagtt ctgggatttt 1980
149 tcagccttgc ttggttttgg ccaaaagcac aaaaaggcg ttttcggaag cgaccgcacc 2040
150 gtgcacaagg gccatttgtt tgttttggga ctcggggcag gaaatcttgc ccggcctgag 2100
151 tcacggcggc tccctcaagg aaacgtcagt gctcgccggt cgtctctctc tgccgcgcgc 2160
152 ccgcgcgcgc gctgcccatg ggggagatgc agggcgcgct ggccagagcc cggctcgagt 2220
153 ccctgctgcg gccccgccac aaaaagaggg ccgaggcgca gaaaaggagc gagtcccttc 2280

```

RAW SEQUENCE LISTING

DATE: 02/28/2002

PATENT APPLICATION: US/10/067,977

TIME: 12:41:45

Input Set : A:\SEQLIST_1313.TXT

Output Set: N:\CRF3\02282002\J067977.raw

```

154 tgctgagcgg actgggtaag cgccgccgcc gggcccgctg ggggcttggc tcacttcccc 2340
155 agagcggcctt ggagggcaggg gccggccttc gtcggagttc tcggggccgg ggtcccgccg 2400
156 gcgggaacgg gaggacctgg cgggcgaggt cgcgcgcgca ggccctgcgc ccagggataa 2460
157 accccggagg gtggcgcgca ccgccggctc ggggttggga ggagggtggg agtccggccg 2520
158 caggacggcg cctggccggg gagagggtat ctgcagggac agtgagcgaa gccaccgtgg 2580
159 ccgccgcgca ccgccggga agcgcttcgg cgctgcgaac ccggctttct ccggcggcgg 2640
160 aataaatgag agagggtgaa aactaccccg ggctctccgg ccctccccgc gccctccgcc 2700
161 ggcgcgttct ctctctcctg ccccaggagc cgatggagac tgataacggc cctgcgccag 2760
162 gccgtccccg ggcggtcctc gcgccccgcg ccggggctcg ccctctcaat ggggacagaa 2820
163 ccgccgcggc caggcagcgt agccgccagc aaaccgcgag gcggtcgggg cggggcgagg 2880
164 ggcgaggcga agggcggggc cacttctcac tgcgcgcgag gccccgcccc cgcgcggtg 2940
165 ccttttttat aaggccgagc gcgcggcctg gcgcagcata cgccgagccg gtctttgagc 3000
166 gctaacgtct ttctgtctcc ccgcggtggg gatgacgggtg aaaactgagg ctgctaaggg 3060
167 caccctcact tactccagga tgaggggcat ggtggcaatt ctcatcgggtg agtgcaggaa 3120
168 tcttgcggga cttctgctcc aggagacgca aagtggaaat tttttgaaag tcccgatca 3180
169 gattagtgtg tgtggcgccg gacgttatga agccgtctaa acgtttcttt atttctcctc 3240
170 cttcatccac agctttcatg aagcagagga ggatgggtct gaacgacttt attcagaaga 3300
171 ttgccaataa ctctatgca tgcaaacagt aagtttgacc ggatttgagg aaataactag 3360
172 tatagtttga atttgccagc ggtaaacatt ctcatcacgg cgtttatcgg gaaggcgaag 3420
173 acttcttctg ggggtggggat ctcatttctc cttaaattct aatatatttg acacatttta 3480
174 aacattaaag ttaatttgct gatttggtt gaactggaga tgtaagataa atggttcgtg 3540
175 ttggccgaat tcacggcctt tctccatgag caacaatcct tattttotgta tttaatgggg 3600
176 tttattatth tctttaactg actaatgtat tggggtatth tcagtttaaa cagtgaatta 3660
177 tccgggtaga agtcggtaga gccaggaaac tcacttttga tgttggtgtg cccctagtgt 3720
178 gcgagctgga ttctaaatcg tgccctttat tccctgcagc cctgaagttc agtccatctt 3780
179 gaagatctcc caacctcagg agcctgagct tatgaatgcc aacctttctc ctccagtaag 3840
180 tttttgtatg tgccgtgcat ctgtggagaa ctgtaaggga gtcagttagt attcctacat 3900
181 taatggatta aaatagcatt tctagaaatt agtatcaagg caggaatgct tcattatggc 3960
182 ataacaagtg atataaatat ttaagtattg agtcagagta ttattttatt tttttcctgg 4020
183 gcatatttta cctccaaagt ggttatttta aaaggcatat ttcataaaaa ggttttatct 4080
184 gtctgaaaca acatgactgt gtgcagtttc catactcatt tgaaatgtga tgaaatgtag 4140
185 ttttgaatgt ttatagatgt atggtcattt gcatacgtca tttgtagatg taacattttc 4200
186 tacatcgttt atgttataga tgtcttcctt tgaagcaatg gtattaaaag aaattctttt 4260
187 tttttttttc tagccaagtc cttctcagca aatcaacctt ggcccgctcg ccaatcctca 4320
188 tgctaaacca tctgactttc acttcttgaa agtgatcgga aagggcagtt ttggaaagg 4380
189 aatttcaaat ctgaagatct tttggtacac ttccttcatg tctctttta tttctcct 4440
190 ggatgaggat agaaaaatga tttttttaaa ttgaaatttc aggttcttct agcaagacac 4500
191 aaggcagaag aagtgttcta tgcatgcaaa gttttacaga agaaagcaat cctgaaaaag 4560
192 aaagaggatg gagatgtgct tgatggggct ggcattggcg gtagacactc cttgaataat 4620
193 cttgattctg gaatgttggt gccagttga aacatgccac taaatctgaa tcgtcatttt 4680
194 cctaggagaa gcatattatg tcggagcgga atgttctggt gaagaatgtg aagcaccctt 4740
195 tctggtggg ccttcaactc tctttccaga ctgctgacaa attgtacttt gtcctagact 4800
196 acattaatgg tggagagggt agcagggggg atagaagtca actcttagtg tctctgcaca 4860
197 gcctgctttg ttttagtttg agaaaaagt tttcaaagat ttttgggtgg gagaatgtta 4920
198 ccagaattag catttcttcc aacctgtcag gtttatagtt aatagattac ttggggccac 4980
199 ttctgcagtg tgttcttttg ctgtgtatgt caaaactaat taaattcatt tgcaaccag 5040
200 aatgactttg ttctgtctcc tgcagttggt ctaccatctc cagagggaaac gctgcttct 5100
201 ggaaccacgg gctcgtttct atgctgctga aatagccagt gccttgggct acctgcattc 5160
202 actgaacatc gtttataggt aagcctgaga gctcttcagg ctaccagttt tgggtataag 5220

```

RAW SEQUENCE LISTING

DATE: 02/28/2002

PATENT APPLICATION: US/10/067,977

TIME: 12:41:45

Input Set : A:\SEQLIST_1313.TXT

Output Set: N:\CRF3\02282002\J067977.raw

```

203 gagacgtagc actggctggt tcatagggcc ttaaaataat ttgtgtttat ttgcaacttg 5280
204 gttgcctaaa accagatccc ctagcacgtg agctggcttg acttaagtgc caagggggaa 5340
205 ccagccaagt aggattgtgc ctaatccaga atagatgagc agaacaaggg ctcccttttt 5400
206 tcttcactac acaactacag tgaacctaaa atgcctctaa taccttttagc aattatcttt 5460
207 aagaggatat cttatgaagt gaaattaaact tgtgcaacta cttttctatt cactttttta 5520
208 cagagactta aaaccagaga atatttttgc agattcacag ggacacattg tccttactga 5580
209 ctteggactc tgcaaggaga acattgaaca caacagcaca acatccacct tctgtggcac 5640
210 gccggaggtg ggcgctgtct tggtttgggt cctggtttac ccccgcttc caagagagag 5700
211 atgtacaatc atgcacttaa ctacaaaaaa gagtaaactc ctctcagaga cttcttaata 5760
212 cagttcagtg caaataaaat acatttgctg tttgatgtag catgagaaat cccaagtcc 5820
213 tctgttcctt tactgaaaag tagctgtttg taagtaagat ctgcatcata aaaactttct 5880
214 aaatccctaa gtaagagata tcaagtggcc agcagtttcc taaatgtcag tacacatagg 5940
215 tagccagtc cctcaaaaa gtccagcagt tttatcagga aggaatctaa agatatctat 6000
216 ctccaagct ggctctgggt ctctcagctt tttcaaaact aatgtgtggt cgtgggattg 6060
217 cttgctttcg caggttctaa acgctgtttc cctggtctgt ttttcagtat ctgcacctg 6120
218 aggtgcttca taagcagcct tatgacagga ctgtggactg gtggtgcctg ggagctgtct 6180
219 tgtatgagat gctgtatggc ctggtgagtg gcacattggg aacctggaa cactgcctgc 6240
220 tccctacaat attgccttca cacagcccat gcttggccat ggtgtcttgc ccttaccagt 6300
221 acgcttatca aaagcagcta agaggcata tggttatttt atagttcata agaataatca 6360
222 cttacctggt tcttttgtgc atttcacatt ttactagata ggaccacatt gaacctgtgt 6420
223 ggtggtgaaa aactaccact tattaacatc taccocctca ccctccacac acacacacac 6480
224 aaacacacac acgggttgca aagtagacac ttaaatagca agggaaaaga aagcattgag 6540
225 gtggggagag tttctcaaat cgagccta atttattgcc gtttatatct tttctctac 6600
226 tggtaatgtg tgccatatga aacttccaat taagtctaaa gtaattttcc cttcttttca 6660
227 gccgcctttt tatagccgaa acacagctga aatgtacgac aacattctga acaagcctct 6720
228 ccagctgaaa ccaaatatta caaattccgc aagacacctc ctggaggggc tctgcagaa 6780
229 ggacaggaca aagcggctcg gggccaagga tgacttctgt agtgatgttt tctgtcctc 6840
230 ctgggccggc cgggacgtgc actagacctc cctgccctta ttgaatgcac ctgtctaaat 6900
231 taatcttggg tttcttatca acagatggag attaagagtc atgtcttctt ctcttaatt 6960
232 aactgggatg atctcattaa taagaagatt actccccctt ttaacccaaa tgtggtgagt 7020
233 atctgtctct cttctaagta tagagaagcc caaagggc attttttaat tcagaattgt 7080
234 ctgggggagg gttggaagga atacattggc agatgttttc tccataaacc tgttatttta 7140
235 cctacataaa aagcacattt ttgtgtccca acaaggctcc cataattttt agacacattt 7200
236 atcaattcga agcaccaaaa ggcaacaagt gaacattatt cttatgttta actgtgtgta 7260
237 gccttttgag attttgtgct tgaagtgggt gattatggaa gttgatataa gacttaaact 7320
238 tgggtatttaa agcctgggtc agatttccct gtctgtgtc tagtgtgagt tcttgacaag 7380
239 agtggttttc ccttcccgtc acagagtggg cccaacgacc tacggcactt tgaccccgag 7440
240 tttaccgaag agcctgtccc caactccatt ggcaagtccc ctgacagcgt cctcgtcaca 7500
241 gccagcgtca aggaagctgc cgaggtttc ctaggtttt cctatgcgcc tcccacggac 7560
242 tctttcctct gaaccctgtt agggcttgg tttaaaggat tttatgtgtg tttccgaatg 7620
243 ttttagttag ctttttgggt gagccgccag ctgacaggac atcttacaag agaatttgca 7680
244 catctctgga agcttagcaa tcttattgca cactgttcgc tgggaagctt ttgaagagca 7740
245 cattctctc agtgagctca tgaggtttt atttttattc ttccttccaa cgtggtgcta 7800
246 tctctgaaac gagcgttaga gtgccgcctt agacggaggc aggagtctcg ttagaaagcg 7860
247 gacgctgttc taaaaaggt ctctgcaga tctgtctggg ctgtgatgac gaatattatg 7920
248 aaatgtgcct tttctgaaga gattgtgtta gtcctaaagc ttttcctatc gcagtgttc 7980
249 agttctttat tttcccttgt ggatatgtc tgtgaaccgt cgtgtgagtg tggatgcct 8040
250 gatcacagat ggattttgtt ataagcatca atgtgacact tgcaggacac tacaacgtgg 8100
251 gacattgttt gtttcttcca tatttggaag ataaatttat gtgtagactt ttttgtaaga 8160

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/067,977

DATE: 02/28/2002

TIME: 12:41:46

Input Set : A:\SEQLIST_1313.TXT

Output Set: N:\CRF3\02282002\J067977.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date